

Milltown Reservoir Site Update, April 5, 2007.

Construction work continues at the Milltown Reservoir Site to prepare for springtime high river flows. The Reservoir is currently drawn down 8 feet from full pool. It was down as much as 12 feet earlier this winter, but recent increases in river flow have brought the water level up. Work is on schedule for removal of the dam's spillway in March, 2008.



The photo above shows an overview of the construction site from the bluff above the dam on the south side of the river. Envirocon construction crews are making steady progress in building flood control berms along the Clark Fork River, on the right, and the Blackfoot River, on the left. The Clark Fork berm is nearly complete. Both berms are expected to be complete by the end of next week, before spring runoff occurs. A large crane is visible in the foreground, placing large rock along the Blackfoot flood berm.



River flows are above average for this time of year. Due to increased flows, the reservoir level has reached the top of the spillway and begun to flow over the spillway. Until recently all of the river flow was channeled through the radial gate, which is between the brick powerhouse and the spillway.

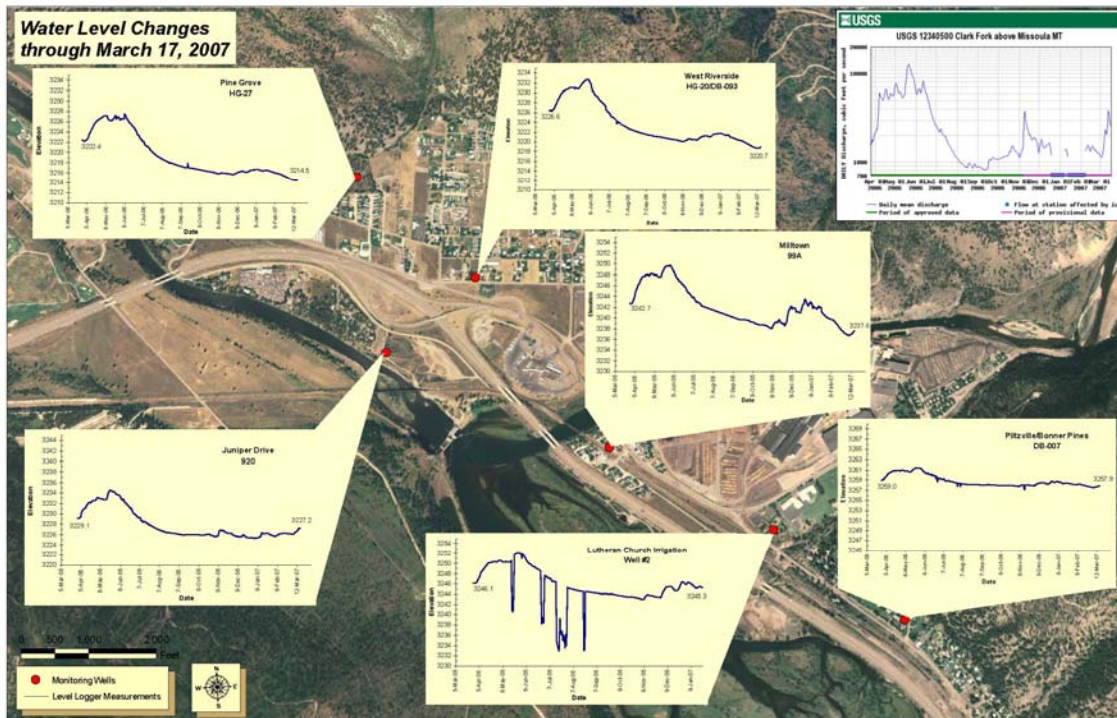


These photos were taken inside the powerhouse about three weeks ago. Workers have removed the turbine assemblies inside the penstocks, which are the large blue tubes that channel flow through the powerhouse to generate power. . The photo on the left shows the powerhouse and a portion of the penstocks removed and lying on the floor on the left side of the photo. The penstocks are at the base of the concrete wall on the right. The photo on the right shows a worker using a torch to remove the rusted turbine from inside the penstock. After the turbines were removed, the penstocks were put back together. The purpose of this work is to allow water from the reservoir to flow through the penstocks without being restricted by the turbine assemblies inside. This will allow each penstock to be used as a low level outlet for the reservoir, increasing the amount of water that can be passed by the dam. Each unit is expected to handle at least 500 cubic feet per second of river flow, and four units have been modified. This will allow at least 2,000 cfs of additional flow to pass through the powerhouse. The river today is carrying a flow of 2,800 cfs, so the penstocks could handle almost all of the current river flow. During Spring runoff, the river flow may reach up to 10,000 to 15,000 cfs or more. The ability to pass a portion of that flow through the powerhouse will help keep the water level down in the reservoir, and water out of the construction site. It will also help prevent overtopping of the newly installed flood berms if we have a large flood this spring, and protect excavated sediment stockpiles from erosion downstream.





The two photos above show large rock riprap being placed by a crane along the Blackfoot flood berm. In the background, near the Interstate highway, a portion of the flood berm is comprised of steel sheet piles driven into the river bed gravels. These steel piles are being installed where the bypass channel will flow back into the Blackfoot River.



Groundwater levels reached the seasonal low point in March, and five more domestic wells near the reservoir in West Riverside went dry. A total of 57 wells are being monitored by the University of Montana Geology Department to track changes in water levels as the dam removal project progresses. The figure above shows water level drop in neighborhoods surrounding the reservoir since March, 2006. Water levels in West Riverside and Pinegrove have dropped about 6 to 8 feet in the past year, due to the reservoir water level drawdown. EPA has local well drillers on retainer to replace affected wells as quickly as possible when domestic wells are affected. Nineteen domestic wells have been replaced so far, at EPA expense. Most of those wells were in the community of milltown itself, immediately adjacent to the reservoir. All individual domestic wells in that neighborhood have now been replaced with deeper wells. The other problem area has been in West Riverside and Pinegrove, west of the Blackfoot River. Wells in this area have been affected by the 2005 removal of the Bonner Dam on the Blackfoot River, and the Milltown Reservoir drawdown in 2006-7. Sediment filters and water softeners have been installed on a few wells to deal with sediment and iron in wells affected by the water level drop. The University of Montana Geology Department is preparing a computer model to help predict the final water levels in groundwater following dam removal. With recent increased flow in the rivers, water levels in the groundwater have also risen. Water levels will not drop to low levels again until mid to late summer when the rivers flows drop. Other wells should not have supply problems until that time. The next reservoir drawdown, of about 6 additional feet, is scheduled for this fall.

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